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09/839,608	04/23/2001	Pascal Ross	16325.005	1479

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Arnold & Porter  
555 Twelfth Street  
Washington, DC 20004-1206

EXAMINER
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CULLER, JILL E

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/839,608

Applicant(s)

ROSS ET AL.

Examiner

Jill E. Culler

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 32-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Newly submitted claims 32-40 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The inventions are defined as:

- I. Claims 1-31, drawn to a doctor blade assembly having a gap between an anilox roll and a doctor blade.
- II. Claims 32-40, drawn to a doctor blade assembly that does not utilize a tube system for feeding ink into the ink chamber.

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as use with a system that does utilize a tube system for feeding ink. See MPEP § 806.05(d).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 32-40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,826,509 to Deneka in view of U.S. Patent No. 3,333,535 to Behringer.

With respect to claims 1 and 29, Deneka teaches a doctor blade assembly, 30, for use in a flexographic printing system comprising an upper blade, 34, positioned to provide contact with an anilox roll, 20, an ink chamber, 47, 49, positioned below the upper blade, and a lower blade, 33, positioned below the ink chamber.

Deneka does not teach that the lower blade is positioned such that a gap exists between the lower blade and the anilox roll sufficient in size to allow ink to be drawn into and expelled from the ink chamber, or an ink tray positioned below the lower blade.

Behringer shows a doctor blade assembly for use in a printing system comprising, an upper blade, 100, positioned to provide contact with a roller, 14, an ink chamber positioned below the upper blade, a lower blade, 58, positioned such that a gap exists between the lower blade and the roller sufficient in size to allow ink to be drawn into and expelled from the ink chamber, see column 5, lines 6-8, and an ink tray, 52, positioned below the lower blade.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the doctor blade assembly structure of Behringer with the printing system of Deneka in order to be able to more consistently transfer ink to the anilox roll.

With respect to claims 9-10, Deneka shows a system comprising an anilox roll, 20, coupled to an ink supply, a printing cylinder, 11, coupled to the anilox roll, 20, for transferring patterns to a web, 13, ink chamber means, 30, for consistently applying ink to the anilox roll and thereby to the printing cylinder and for maintaining consistent ink transfer from the ink chamber means to the anilox roll.

Deneka does not teach a gap means for increasing volume in the ink chamber means and for allowing ink to be expelled from the ink chamber means.

Behringer teaches an ink chamber means having a gap means for increasing volume in the ink chamber means and for allowing ink to be expelled from the ink chamber means. See column 5, lines 6-8.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the gap means of Behringer with the ink chamber means of Deneka in order to be able to more consistently transfer ink to the anilox roll.

With respect to claims 4 and 13, Deneka does not teach that the doctor blade assembly is retractable such that the upper blade provides sufficient contact for varying diameters of anilox roll.

Behringer teaches a doctor blade assembly that is retractable to accommodate varying diameters of the anilox roll, see column 5, lines 8-12.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the doctor blade assembly of Deneka using the retractable structure of Behringer in order to be able to supply ink to anilox rolls of varying sizes in the printing system.

With respect to claim 6, Deneka teaches that the upper blade is in contact with the anilox roller for the entire length of the roller. See column 4, lines 3-6.

With respect to claim 7, Deneka teaches that the lower blade is positioned to mirror the angle of the upper blade with the vertical.

With respect to claims 8, 17 and 25-28, neither Deneka nor Behringer discusses the specific dimensions of the doctor blade assembly as claimed. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to construct the doctor blade assembly using appropriate dimensions to accommodate any printing system for which it was intended.

With respect to claim 11, Deneka teaches a means for maintaining consistent hydraulic pressure within the ink chamber means. See column 1, lines 49-53.

With respect to claim 18, Deneka teaches a method of metering the transfer of ink into anilox cells, comprising the steps of rotating an anilox roll, 20, against an upper blade, 34, see column 3, lines 48-55, shaving a volume of excess ink from the surface of the anilox roll, see column 5, lines 20-21, directing the flow of ink into an ink chamber, 49, see column 5, lines 21-22, and transferring ink from the ink chamber to anilox cells under pressure, see column 5, lines 33-37.

Deneka does not teach the step of carrying ink on the anilox roll from an ink supply through a gap.

Behringer teaches a method of applying ink from an ink supply, 52, and carrying it through a gap into an ink chamber. See column 4, lines 58-63.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the ink transferring method of Deneka using the step of applying ink from an ink supply through a gap, as taught by Behringer, to introduce additional ink from the ink supply means into the ink chamber.

With respect to claim 22, Deneka teaches consistently transferring ink from anilox cells to a means for transferring a pattern to a web. See column 3, lines 13-22.

With respect to claim 23, Deneka does not teach that the ink is supplied to the ink chamber from the ink tray through the gap.

Behringer teaches applying ink from an ink supply, 52, and carrying it through a gap into an ink chamber. See column 4, lines 58-63.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Deneka to supply ink to the ink chamber through a gap, as taught by Behringer, to introduce additional ink from the ink supply means into the ink chamber.

4. Claims 2-3, 12, 19-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deneka and Behringer as applied to claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 above, and further in view of U.S. Patent No. 5,168,806 to Reder et al.

With respect to claims 3, 12, 19, 21 and 24, Deneka and Behringer teach all that is claimed, as in the above rejection of claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 except that the ink is consistently expelled from the ink chamber through the gap once a critical pressure has been reached inside the ink chamber and that the ink tray collects the expelled ink.

Reder et al. teaches a doctor blade assembly having a gap between a doctor blade, 8, and an ink roller, 2, through which ink is consistently expelled from an ink chamber, 9, as pressure is increased in the ink chamber, see column 4, lines 56-61, and collected in an ink tray, 14. See column 5, lines 5-7.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the ink chamber means of Deneka using the pressure sensitive gap means of Reder et al. in order to be able to expel the ink from the ink chamber through the gap and collect the ink in the ink tray.

With respect to claim 2, Deneka does not teach a gap positioned such that ink is consistently transferred to the anilox roll.

Behringer teaches an ink chamber means positioned such that ink is consistently transferred to the anilox roll. See column 5, lines 6-8.

It would have been obvious to one having ordinary skill in the art to use the gap positioning of Behringer with the modified ink chamber means of Deneka in order to keep the anilox roll supplied with ink.

With respect to claim 20, Deneka and Behringer do not teach the step of reusing the expelled ink in the performance of steps (a) through (e).



Art Unit: 2854

Reder et al. teaches that the expelled ink is collected and reused. See column 5, lines 5-9.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the ink chamber means of Deneka to reuse the expelled ink, as taught by Reder et al. in order to minimize the waste of the ink.

5. Claims 5 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deneka and Behringer as applied to claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 above, and further in view of U.S. Patent No. 4,432,282 to Jurinak.

With respect to claims 5 and 14, Deneka and Behringer teach all that is claimed, as in the above rejection of claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 except that the upper blade is positioned at an angle ranging from 19 to 30 degrees from the vertical axis.

Jurinak teaches a doctor blade assembly with an upper blade, 44, positioned at an angle of about 30 degrees to the vertical axis. See column 6, line 67 to column 7, line 3.

It would have been obvious to one having ordinary skill in the art at the time of the invention to position the upper blade of Deneka, as modified by Behringer, at an angle ranging from 19 to 30 degrees from the vertical axis because Jurinak teaches that this is an advantageous angle at which to position the doctor blade.

With respect to claim 15, Deneka teaches that the upper blade is in contact with the anilox roller for the entire length of the roller. See column 4, lines 3-6.

Art Unit: 2854

With respect to claim 16, Deneka teaches that the lower blade is positioned to mirror the angle of the upper blade with the vertical.

6. Claims 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deneka and Behringer as applied to claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 above, and further in view of U.S. Patent No. 3,094,924 to Stark.

Deneka and Behringer teach all that is claimed, as in the above rejection of claims 1, 4, 6-11, 13, 17-18, 22-23, and 25-29 except that the ink chamber does not employ a pump system for feeding ink into said ink chamber and that the ink chamber means is sealed, except for the gap means.

Stark teaches a doctor blade assembly having an ink chamber means, 12, which does not employ a pump system for feeding ink into the ink chamber, and which is sealed except for the gap means. See column 1, lines 32-48.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the ink chamber means of Deneka and Behringer to have the sealed structure of Stark, which does not employ a pump means for feeding ink into the chamber, in order to eliminate contamination of the chamber and make the cleanup process easier.

### ***Response to Arguments***

7. Applicant's arguments filed July 16, 2003 have been fully considered but they are not persuasive.

Art Unit: 2854

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Deneka teaches a doctor blade assembly as claimed, except that the lower doctor blade is positioned with a gap between the blade and the anilox roll. Behringer teaches the use of a gap between a doctor blade and an anilox roll to remove excess ink as the roll passes the blade, see column 5, lines 1-3, and therefore "more consistently transfer ink to the anilox roll" as stated in the above rejection. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicant's claim limitation of a gap "sufficient in size to allow ink to be drawn into and expelled from said ink chamber" does not effectively distinguish this gap from the gap taught by Behringer. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art

Art Unit: 2854

structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (703) 308-1413. The examiner can normally be reached on M-Th 7:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone

Art Unit: 2854

number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

jec



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